

**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**Departmental Program Structure and Outcome Measures**



AIR
WATER
ENERGY
FOREST PRESERVATION
COMPLIANCE
OUTREACH
SOLID WASTE

**Mission:** *To protect and enhance the quality of life in our community through the conservation, preservation, and restoration of our environment guided by principles of science, resource management, sustainability, and stewardship.*

Outcome-based accountability in environmental protection is built on a commitment to ensure that every dollar spent works toward improving the conditions of the environment in Montgomery County. If the Department of Environmental Protection is to be accountable, we must be able to demonstrate that our programs make a difference in the lives of the people we serve.

DEPARTMENTAL OUTCOMES	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY06 CE REC
<b>Ambient Air</b>					
Number of days the County is in noncompliance with National Ambient Air Quality Standards for ozone	3	8	1	5	3
<b>Water</b>					
Percentage of residential stormwater management facilities in the County that have joined the Stormwater Facility Maintenance Program <sup>a</sup>	NA	32	45	63	51
Percentage of County groundwater meeting drinking water standards <sup>b</sup>	NA	81	81	88	88
Percentage of CSPS subwatersheds monitored in fiscal year with an improved rating <sup>c</sup>	14.7	6.2	6.0	15	12
<b>Energy</b>					
Percentage change in residential energy consumption <sup>d</sup>	+3	+12	+6	90	90
Percentage change in non-residential energy consumption <sup>d</sup>	-4	+19	+10	90	90
<b>Forest Preservation</b>					
Percentage of County meeting urban/suburban tree canopy cover goals <sup>e</sup>	NA	25	25	25	25
<b>Compliance</b>					
Number of complaints and information requests relating to the environment received by the Department of Environmental Protection	1,404	1,541	1,757	1,920	1,800
<b>Outreach</b>					
Number of website hits on Department of Environmental Protection home page <sup>f</sup>	338,829	3,200,000	2,500,000	3,000,000	1,000,000
<b>Solid Waste</b>					
Percentage of County solid waste facilities in compliance with State and Federal standards	60	80	100	100	100

**Notes:**

<sup>a</sup>This program, which began in March, 2002, is designed to ensure that the County covers the costs needed to meet Federal stormwater management regulations. The Water Quality Protection Charge shifts stormwater maintenance costs from private to public funding: a charge based on a property's impervious area has appeared on the property tax bill since July 2002. Property owners can also choose to have the County maintain stormwater facilities on their property by entering them into the Water Quality Protection Charge Program.

<sup>b</sup>The percentage of County groundwater meeting drinking water standards is determined through use of the Baseline Monitoring Program recommended by the Groundwater Protection Strategy Work Group.

<sup>c</sup>The Countywide Stream Protection Strategy (CSPS) ranks streams based on biological life supported (fish, aquatic insects) and channel habitat conditions as monitored at 300 stations. About 20% of the stations are sampled each year, enabling reevaluation of stream conditions over a five-year cycle.

<sup>d</sup>Percentage increase or decrease in per capita consumption of fossil fuels from 1995 base year (from Montgomery County Department of Finance).

"Residential" includes all uses of energy for residential purposes. "Non residential" includes all industrial and commercial energy use in the County. Transportation fuels are not included in this analysis.

<sup>e</sup>The percentage of the County meeting urban/suburban tree canopy coverage goals is estimated; information is not yet available for 20% of the County.

<sup>f</sup>The fluctuation in the number of website hits is due largely to increased outreach regarding the website coupled with changes in tracking capabilities.

<sup>g</sup>This reflects the immediate objective of avoiding an increase in per capita energy consumption. The long-term goal is to reduce per capita energy consumption below the baseline 1995 level.

# ENVIRONMENTAL PROTECTION

**PROGRAM:**

Administration

**PROGRAM ELEMENT:**

Water and Wastewater Management and Planning

**PROGRAM MISSION:**

To plan for the timely, logical, economical, and environmentally sound provision of public water and sewer service to adequately satisfy County development/growth demands

**COMMUNITY OUTCOMES SUPPORTED:**

- Meeting consumer and business needs for cost-effective and timely public water and sewer service
- Provision of public water and sewer service consistent with Smart Growth objectives and County land-use plans
- Timely provision of public water and sewer service to relieve public health problems resulting from failed wells and septic systems
- Responsiveness to development industry needs by providing accurate and timely reviews of development plans and subdivision plats

**PROGRAM MEASURES**

	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY06 CE REC
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**Outcomes/Results:**
**Service Quality:**

Average time to complete plat reviews (days)	13	14	16	9	9
Average time to process map amendments (days):					
- Administrative delegation process - with hearing <sup>a</sup>	96	126	<sup>b</sup> 120	80	80
- Administrative delegation process - without hearing <sup>a</sup>	91	204	<sup>b,c</sup> 304	60	60
- County Council process	186	255	<sup>b</sup> 296	170	170

**Efficiency:**

Development plans and plats reviewed per workyear	1,010	1,038	900	1,120	1,120
Average review cost per plan or plat (\$) <sup>d</sup>	74	76	99	87	84

**Workload/Outputs:**

Development plans reviewed	258	211	218	220	220
Record plats reviewed	247	308	232	340	340
Map amendments reviewed	89	61	<sup>e</sup> 56	65	65

**Inputs:**

Workyears (development plan and plat review)	0.5	0.5	0.5	0.5	0.5
Expenditures (development plan and plat review) (\$000) <sup>d</sup>	37.4	39.5	44.6	48.7	46.8

**Notes:**

<sup>a</sup>Under the administrative process, the County Council delegates to the Director of the Department of Environmental Protection the authority to grant Water and Sewer Plan amendments (usually service area category changes) under a limited set of circumstances as defined in the Plan.

<sup>b</sup>The increases in FY04 Actual review times reflect staff time diverted to (1) completion of the triennial update of the Water and Sewer Plan, (2) research on and preparation of legislation and executive regulations for a category change application fee, and (3) coordination with the Maryland-National Capital Park and Planning Commission on four master plan revisions. This work resulted in fewer administrative actions and Council transmittals than are usually scheduled during the fiscal year. The Department of Environmental Protection expects to resume normal amendment schedules during FY05.

<sup>c</sup>The unusual increase in "without hearing" administrative review times--see also the chart below--did not result in substantial delays in actually providing public water and/or sewer service to map amendment applicants. Most "without hearing" cases involve situations that can be addressed by alternate, more timely interim procedures that do not require waiting for a map amendment. For instance, in those cases involving health problems or service from abutting mains (the majority of "without hearing" cases), the Department is able to direct the Washington Suburban Sanitary Commission to provide restricted service to the properties without waiting for the category change process. Formal processing of the relevant map amendments can therefore be delayed (which accounts for the sharp increase in average processing time) while staff focuses on other pressing issues (such as those described in footnote "b").

<sup>d</sup>The expenditures shown reflect staff resources exclusively. The FY06 reduction reflects a staffing change from a Planner III to a Planner I.

<sup>e</sup>The total number of FY04 amendments reviewed reflects several amendments with multiple applicants. If each property had been considered separately, the figure would have totaled approximately 72 map amendments. In addition, during FY04 the Department processed a category change for the entire Kingsview Knolls neighborhood in Germantown, an amendment which included approximately 35 individual properties.

## ENVIRONMENTAL PROTECTION

### PROGRAM:

Administration

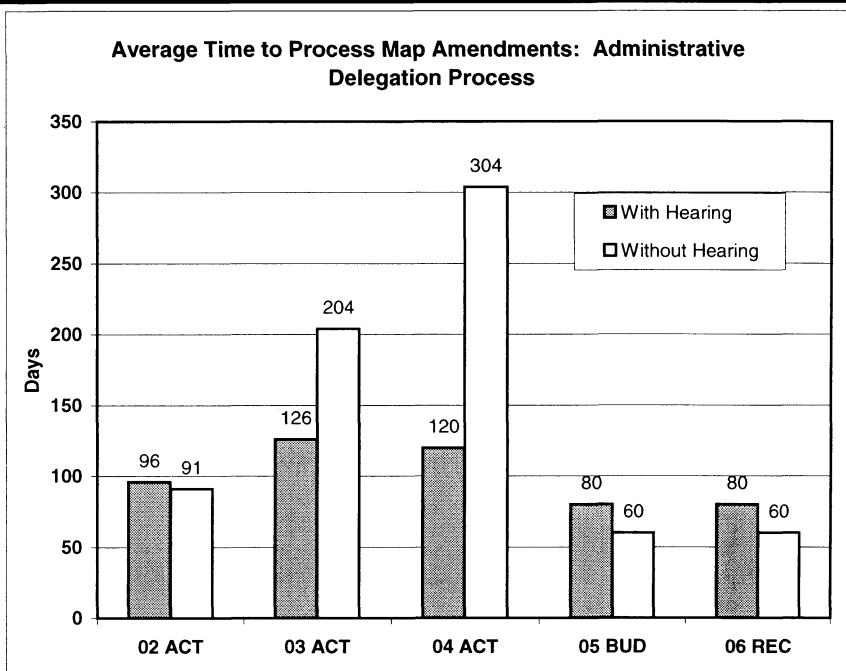
### PROGRAM ELEMENT:

Water and Wastewater Management and Planning

### EXPLANATION:

In 1996 and 1999, the County modified its Water and Sewer Plan policies for administrative delegation amendment actions, allowing some non-controversial amendments to bypass the public hearing process. These cases involve public health problems, properties abutting existing mains, non-policy text amendments, smaller on-site systems, and map corrections. The purpose of the non-hearing administrative process is to reduce review times for those map and text amendments which qualify, providing more efficient customer service. The non-hearing administrative actions are scheduled as needed, rather than on the quarterly schedule used for administrative hearings. Although review times have fluctuated from year to year (largely in response to overall work demands), the non-hearing review times are usually less than those for the hearing-based cases.

(Footnote "b" above addresses the increase in the FY04 Actual "without hearing" review time shown in this chart.)



**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Maryland-National Capital Park and Planning Commission, Washington Suburban Sanitary Commission, Department of Permitting Services, County Council, municipal governments, Maryland Department of the Environment and Office of Planning, local civic and environmental organizations, development industry.

**MAJOR RELATED PLANS AND GUIDELINES:** Montgomery County Comprehensive Water Supply and Sewerage Systems Plan, Montgomery County General Plan, local area master and sector plans, Washington Suburban Sanitary Commission guidelines and regulations, State law governing the preparation of and amendments to comprehensive water supply and sewerage systems plans.

# ENVIRONMENTAL PROTECTION

**PROGRAM:**

Environmental Policy and Compliance

**PROGRAM ELEMENT:**

Compliance Monitoring at County Division of Solid Waste Services Facilities

**PROGRAM MISSION:**

To assure that County solid waste facilities are in compliance with Federal, State, and local environmental regulations and permits

**COMMUNITY OUTCOMES SUPPORTED:**

- Effective and efficient operation of County waste facilities
- Reduced pollution of County air, streams, and groundwater, and enhancement of the environment

**PROGRAM MEASURES**

	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY06 CE REC
<b>Outcomes/Results:</b>					
Percentage of facilities in compliance	80	80	100	100	100
Number of violations	1	1	0	0	0
<b>Service Quality:</b>					
Ratio of actual to planned samples collected <sup>a,d</sup>	1.25	0.85	1.03	1.00	1.00
<b>Efficiency:</b>					
Samples collected per workyear <sup>b</sup>	71.3	143.2	181.7	198.1	155.7
Average laboratory cost per sample (\$) <sup>c</sup>	387	108	67	103	153
<b>Workload/Outputs:</b>					
Number of environmental samples collected <sup>d</sup>	385	806	981	949	802
<b>Inputs:</b>					
Laboratory/consultant expenditures (\$000)	149	87	66	98	123
Workyears <sup>e</sup>	5.4	5.6	5.4	4.8	5.2

**Notes:**

<sup>a</sup>More than 100 percent of planned samples were collected in FY02 due to a need for additional methane sampling at the Beantown Dump and the Oaks Landfill.

<sup>b</sup>The number of samples collected per workyear can vary greatly due to unexpected requirements for more intensive monitoring and special studies.

<sup>c</sup>The average laboratory cost per sample analyzed depends on the types of tests being undertaken and their relative proportions. For example, nitrate tests cost about \$15 each, whereas Dioxin tests can cost as much as \$1,600 each. The FY03 reduction in the cost per sample is due to a new lab contract and a large increase in methane samples which are measured in the field.

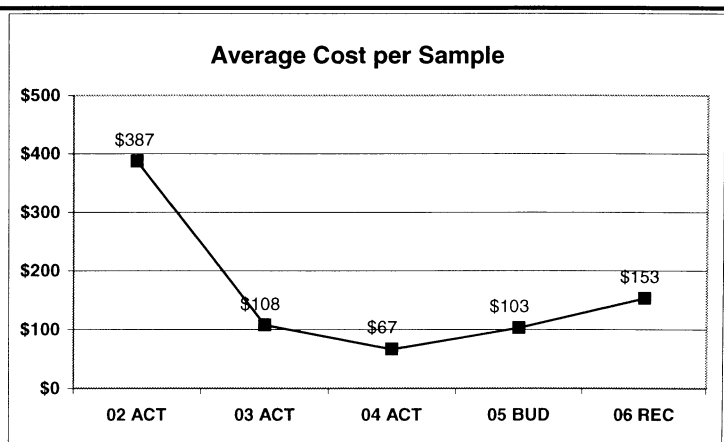
<sup>d</sup>FY03 and FY04 sampling of the Beantown Dump was less than budgeted because design changes reduced the number of vents by 12 percent.

<sup>e</sup>Workyears include only County program staff.

<sup>f</sup>The cost per sample is increasing due to increased lab fees and the need for fewer gas samples.

**EXPLANATION:**

This program monitors County solid waste facilities run by the Division of Solid Waste Services (DSWS) in the Department of Public Works and Transportation for compliance with Federal, State, and local environmental regulations. Five facilities are monitored: the Oaks Landfill, the Gude Landfill, the Transfer Station, the Resource Recovery Facility, and the Dickerson Yard Trim Composting Facility. The Department of Environmental Protection (DEP) acts as both an environmental monitor and a technical consultant to DSWS. Despite DEP's limited direct authority to influence outcomes (other than the negative one of noting and citing violations), DEP has forged a successful relationship with DSWS in creating a solid waste management system that protects both human health and the environment.



**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Division of Solid Waste Services, Office of the County Attorney, Oaks Landfill Advisory Commission, Sugarloaf Citizens Association.

**MAJOR RELATED PLANS AND GUIDELINES:** Resource Conservation and Recovery Act Permit, Federal Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit, County 10-Year Solid Waste Plan, County Stream Protection Strategy, Federal Clean Air Act, Resource Recovery Facility Air Permit, Oaks Final Closure Plan, New Beantown Dump Guidelines.

# ENVIRONMENTAL PROTECTION

**PROGRAM:**

Environmental Policy and Planning

**PROGRAM ELEMENT:**

Countywide Forest Preservation Strategy

**PROGRAM MISSION:**

To protect and restore natural forest ecosystems and urban tree canopy to improve watershed protection and achieve other environmental, energy reduction, and cost-saving benefits

**COMMUNITY OUTCOMES SUPPORTED:**

- Increased tree and forest cover to enhance the quality of life and improve habitat for birds, aquatic, and terrestrial wildlife
- Moderation of thermal "heat island" effects from urban surfaces, reducing energy needs and heating/air conditioning costs
- Improved air and water quality from filtering of pollutants
- Moderation of runoff impacts through increased urban tree canopy and forest cover

**PROGRAM MEASURES**

	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY06 CE REC
<b>Outcomes/Results:</b>					
Percentage of County meeting urban/suburban tree canopy goals <sup>a</sup>	NA	25	25	25	25
Percentage of protected stream buffers and uplands included in forest cover	NA	40	40	40	40
Acres of riparian stream buffer reforested <sup>b</sup>	211	178	93	300	300
Ratio of dead or damaged street trees removed to trees replaced	0.63:1	0.38:1	0.93:1	0.66:1	0.66:1
Pollutant reductions achieved by tree canopy (\$000) <sup>c</sup>	NA	34,146	34,146	34,200	34,200
Cost saving from stormwater runoff mitigation by tree canopy (\$000) <sup>d</sup>	NA	428,648	428,648	428,700	428,700
<b>Service Quality:</b>					
Street tree maintenance frequency (years) <sup>e</sup>	82	77	79	30	30
Percentage of County with complete riparian/upland forest inventory	100	100	100	100	100
Percentage of developed areas with tree canopy tracking in place	75	80	80	100	100
<b>Efficiency:</b>					
Cost per tree for tree pruning (\$) <sup>f</sup>	71	47	85	70	70
Average cost per tree for planting (\$)	109.82	111.63	124.82	125	125
<b>Workload/Outputs:</b>					
Street trees pruned per year <sup>g</sup>	3,044	3,858	3,235	9,348	9,348
Street trees planted per year	1725	1,702	1,522	1,520	1,520
Acres of upland forest protected <sup>h</sup>	745	449	357	500	500
Acres of riparian forest protected <sup>h</sup>	529	556	414	1,000	1,000
<b>Inputs:</b>					
Expenditures - Department of Environmental Protection (\$000) <sup>i</sup>	265	<sup>j</sup> 261	244	266	266
Expenditures - Department of Public Works and Transportation (\$000) <sup>i</sup>	1,787	1,576	1,346	2,130	2,130
Workyears - Department of Environmental Protection	0.5	1.0	1.0	1.25	1.25
Workyears - Department of Public Works and Transportation <sup>k</sup>	15.5	15.5	10.2	15.5	15.5

**Notes:**

<sup>a</sup>Urban/suburban acres achieving tree canopy percentages recommended in Countywide Forest Preservation Strategy.

<sup>b</sup>Riparian forests are wooded areas associated with streams or waterways; they usually reflect a certain species composition and wildlife community. This measure is largely a function of developer activity.

<sup>c</sup>This is the value in dollars of air pollution removed by tree canopy across the County.

<sup>d</sup>This is the value in dollars of stormwater runoff mitigation from the tree canopy (e.g. the saving in stormwater facilities that would otherwise be needed to handle the runoff intercepted by the tree canopy). The calculation is based on a typical 24-hour single storm event of an intensity expected to be encountered once every two years.

<sup>e</sup>This is the frequency of emergency pruning only; no routine maintenance has occurred since 1999. A five to seven year regular maintenance pruning cycle is desired.

<sup>f</sup>This is the cost per tree for emergency pruning only. The cost per tree for regular maintenance pruning is expected to decline after all street trees have received initial pruning on a five to seven year cycle. Most street trees have never been pruned, and initial pruning needs are likely to be more extensive.

<sup>g</sup>This is the cost per tree for emergency pruning only; it does not reflect the cost per tree for routine maintenance pruning.

<sup>h</sup>Includes acres protected through the Rural Legacy Program.

<sup>i</sup>The Department of Environmental Protection budget includes costs for staff and street tree plantings. The Department of Public Works and Transportation budget covers costs for staff, street tree maintenance, dead and hazardous tree removals, and stump removals.

<sup>j</sup>Actual expenditures were lower than budgeted due to personnel on temporary leave-without-pay status for part of FY03.

<sup>k</sup>The FY02 and FY03 figures correspond to budgeted rather than actual workyears.

## ENVIRONMENTAL PROTECTION

**PROGRAM:**

Environmental Policy and Planning

**PROGRAM ELEMENT:**

Countywide Forest Preservation Strategy

**EXPLANATION:**

The County Executive's appointed Forest Preservation Task Force assessed the condition of the County's streamside and upland forests and urban tree canopy. The Task Force's October, 2000 final report recommended goals and action items to increase the quantity and improve the quality of forest and tree cover, restore and protect natural forest ecosystems, and enhance the condition of street trees in the County's most intensively developed urban and suburban areas. The community outcomes and program measures listed above reflect specific initiatives recommended by the Task Force.

The Countywide nature of these initiatives requires close coordination and resource allocations among a number of responsible agencies, integrated with the direct participation of volunteer and community groups. The staff and funding requirements listed are for Executive Branch agencies only. The Forest Preservation Task Force recognized that the Maryland-National Capital Park and Planning Commission (M-NCPPC) may also have resource requirements for improving subdivision reviews and other tree preservation activities related to the development permitting process and parks operations.

In the FY04 Actual measures listed above, the M-NCPPC is credited with 357 acres of upland forest protection and 403 acres of riparian forest protection. The Maryland Department of Natural Resources (through the Conservation Reserve Enhancement Program) is credited with 9.5 acres of riparian forest protection. For riparian (stream buffer) reforestation, the M-NCPPC planted 75 acres in FY04.

**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Department of Public Works and Transportation; Maryland-National Capital Park and Planning Commission; Washington Suburban Sanitary Commission; Board of Education; Audubon Naturalist Society; Izaak Walton League; Sierra Club; PEPCO; other business, environmental, and community groups.

**MAJOR RELATED PLANS AND GUIDELINES:** Montgomery County Forest Preservation Strategy (October 2000); Countywide Stream Protection Strategy (February 1998; July 2003); Chesapeake 2000 Agreement goals for riparian forest buffer restoration; Montgomery County Forest Preservation Strategy Update (July 2004).

# ENVIRONMENTAL PROTECTION

**PROGRAM:**

Environmental Policy and Compliance

**PROGRAM ELEMENT:**

Enforcement of Environmental Codes

**PROGRAM MISSION:**

To reduce pollution and improve environmental quality by enforcing environmental codes and regulations through education, public outreach, proactive initiatives, mandatory monitoring, and enforcement activities using the latest scientific techniques and equipment

**COMMUNITY OUTCOMES SUPPORTED:**

- Improve environmental quality through enforcement
- Reduce pollution and improve the quality of life
- Provide timely and responsive service

**PROGRAM MEASURES**

	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY06 CE REC
<b>Outcomes/Results:</b>					
Number of notices of violation issued <sup>a</sup>	254	198	269	250	250
Number of civil citations issued <sup>a</sup>	15	54	44	50	50
<b>Service Quality:</b>					
Percentage of customers satisfied with service <sup>b</sup>	92	82	90	90	90
Percentage of cases resolved within 90 days	70	79	83	80	80
<b>Efficiency:</b>					
Average number of cases per investigator	234	257	292	320	275
Average cost per case (\$) <sup>c</sup>	481	494	339	331	255
<b>Workload/Outputs:</b>					
Number of cases <sup>c</sup>	1,404	1,541	1,757	1,920	1,800
<b>Inputs:</b>					
Expenditures - salaries (\$000) <sup>d</sup>	675	761	597	636	459
Workyears <sup>d</sup>	8.4	8.4	7.0	7.5	6.1

**Notes:**

<sup>a</sup>Notices of violation are designed to warn an individual or organization that it is violating the environmental codes. If a notice of violation goes unheeded, or if the initial violation involves blatantly illegal activity, a civil citation - with a \$500 fine - can be issued.

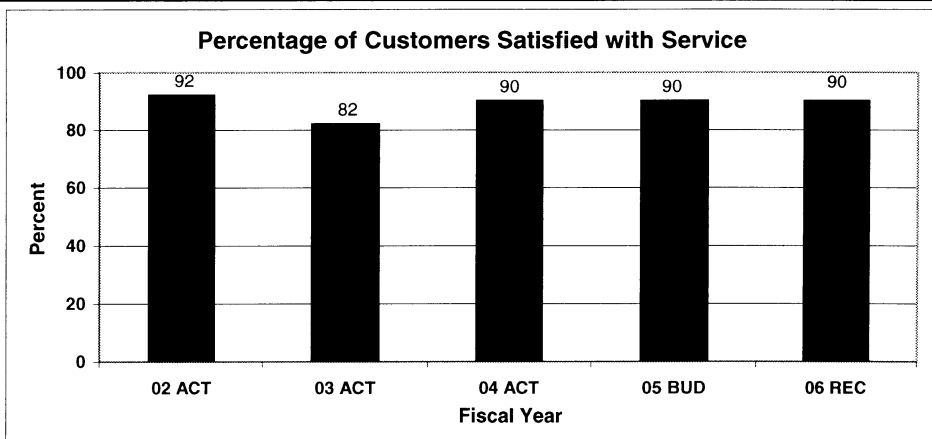
<sup>b</sup>In FY02, 20 percent of closed cases received a customer survey, and the response rate was 39%. In FY03, 50 percent of closed cases were surveyed, and the response rate was 24 percent. The response rate was 22 percent in FY04.

<sup>c</sup>Beginning in FY04, the number of cases includes inquiries as well as complaints.

<sup>d</sup>Some of these staff also perform compliance monitoring at County Division of Solid Waste Services facilities (as reported in the Compliance Monitoring at County Division of Solid Waste Services Facilities program measures display). Since the latter employees have multiple responsibilities and funding sources, it is not possible to accurately allocate the workyears and expenditures between compliance monitoring at County Solid Waste Services facilities and the code enforcement efforts that are the focus of this program element.

**EXPLANATION:**

The Department of Environmental Protection investigates between 1,400 and 1,750 complaints each year related to air quality, water quality, noise, illegal dumping, and hazardous waste. This chart shows the percentage of customers satisfied with the Department's response to their complaints. It is based on information returned from a customer satisfaction survey. The survey was initiated in 1997, and the number of questionnaires mailed has increased each year. Survey cards are only sent to customers who provided the Department with complete address information.



**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Maryland Department of the Environment, Department of Permitting Services, Department of Housing and Community Affairs, Office of the County Attorney, Office of the State's Attorney, Environmental Protection Agency, Montgomery County Police, Montgomery County Fire and Rescue Service.

**MAJOR RELATED PLANS AND GUIDELINES:** Montgomery County Code Chapters 3, 19, 28, 31B, and 48; COMAR; Federal Clean Water Act; National Pollutant Discharge Elimination System Permit.

## ENVIRONMENTAL PROTECTION

**PROGRAM:**

Watershed Management

**PROGRAM ELEMENT:**

Stormwater Facility Inspection and Maintenance Program

**PROGRAM MISSION:**

To ensure that all residential stormwater management facilities receive adequate structural maintenance to sustain operational effectiveness in protecting local streams and providing flood control as required by County, State, and Federal regulations

**COMMUNITY OUTCOMES SUPPORTED:**

- Protection of streams from stream bank erosion
- Protection of aquatic life from sediment and associated pollution
- Protection of public safety
- Restoration of vital infrastructure

**PROGRAM MEASURES<sup>a</sup>**

	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY06 CE REC
<b>Outcomes/Results:</b>					
Percentage of residential stormwater management facilities in the County that have joined the Stormwater Facility Maintenance Program	NA	32	45	63	51
Percentage of residential stormwater management facilities in the County maintenance program that are adequately maintained and in compliance	NA	10	100	100	<sup>9</sup> 70
<b>Service Quality:</b>					
Percentage of customers satisfied with service <sup>b</sup>	NA	NA	90	85	85
<b>Efficiency:</b>					
Cost per facility repaired (\$)	NA	10,000	4,200	4,200	<sup>h</sup> 4,500
Structural maintenance cost per facility in the Stormwater Facility Maintenance Program (\$) <sup>c</sup>					
- Ponds	NA	<sup>i</sup> 52,000	1,000	1,000	1,000
- Underground facilities	NA	2,700	1,550	1,550	6,400
<b>Workload/Outputs:</b>					
Number of residential and public stormwater management facilities in the County	743	805	1,107	1,020	1,458
Cumulative number of facilities transferred to the Stormwater Facility Maintenance Program <sup>d</sup>	NA	256	501	639	739
- Ponds	NA	125	271	359	409
- Underground facilities	NA	131	230	280	330
Number of transferred residential facilities that were inspected	9	44	133	135	175
Number of facilities repaired	NA	48	212	250	<sup>i</sup> 350
<b>Inputs:</b>					
Expenditures - inspection and maintenance costs (\$000)	NA	900	1,613	2,904	2,993
Expenditures - personnel costs (\$000)	NA	<u>345</u>	<u>696</u>	<u>760</u>	<u>888</u>
Total expenditures (\$000) <sup>e</sup>	NA	1,245	2,309	3,664	3,881
Workyears	NA	7.0	9.0	9.0	<sup>i</sup> 10.0

**Notes:**
<sup>a</sup>This program was initiated in March, 2002.

<sup>b</sup>Customer satisfaction survey cards will be mailed to citizens to assess service quality starting in FY05. FY04 is based on telephone surveys.

<sup>c</sup>These are estimates. Structural maintenance is funded by the Water Quality Protection Charge (the WQPC does not pay for nonstructural maintenance).

<sup>d</sup>Only residential stormwater facilities or associated nonresidential stormwater facilities will be transferred into the Stormwater Facility Maintenance Program. Ponds owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC) that drain residential areas are included in the numbers.

<sup>e</sup>Early expenditures were predominantly for government facilities. Expenditures are increasing as more public facilities are transferring into the program.

<sup>f</sup>Many of the ponds brought into the program in FY03 had never been maintained, which resulted in extensive initial maintenance needs and a high cost per pond. It is expected that facilities entering the program in subsequent years will be entering in as-built condition, with a correspondingly lower maintenance requirement.

<sup>g</sup>This number is expected to decrease due to the maintenance burden from the recent turnover of M-NCPPC ponds draining residential properties that were not up to standards prior to entering the program.

<sup>h</sup>This cost does not include large sediment removal projects which typically occur in larger regional ponds only once every 5-20 years. Such costs are considered outliers that can distort average maintenance cost information for more typically sized facilities.

<sup>i</sup>An increase in staff will produce an increase in the number of facilities that will be inspected and repaired. This includes two workyears for Department of Public Works and Transportation positions.

**EXPLANATION:**

This program, which began in March, 2002, is designed to ensure that the County covers the costs needed to meet Federal stormwater management regulations. The relevant revisions to Chapter 19 of the Montgomery County Code were approved by the County Council on November 20, 2000. A Water Quality Protection Charge, based on a property's impervious area, has appeared on the property tax bill since July 2002.

**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Department of Permitting Services, Department of Housing and Community Affairs, Department of Public Works and Transportation, Office of the County Attorney, homeowners' associations, commercial property owners, Maryland Department of the Environment, Environmental Protection Agency.

**MAJOR RELATED PLANS AND GUIDELINES:** Countywide Stream Protection Strategy, Federal Clean Water Act, National Pollutant Discharge Elimination System Municipal Stormwater Permit, Code of Maryland Regulations.



# ENVIRONMENTAL PROTECTION

<b>PROGRAM:</b> Watershed Management	<b>PROGRAM ELEMENT:</b> Water Quality Monitoring; Stream Restoration				
<b>PROGRAM MISSION:</b> To protect citizens and improve the County's environment and quality of life by monitoring and restoring the County's streams and waterways					
<b>COMMUNITY OUTCOMES SUPPORTED:</b> • Protection and enhancement of the environment • Enhanced quality of life through improved stream conditions • Greater citizen and business environmental stewardship through direct participation in stream restoration initiatives					
<b>PROGRAM MEASURES</b>	<b>FY02 ACTUAL</b>	<b>FY03 ACTUAL</b>	<b>FY04 ACTUAL</b>	<b>FY05 BUDGET</b>	<b>FY06 CE REC</b>
<b>Outcomes/Results:</b>					
Percentage of CSPS <sup>a</sup> subwatersheds monitored during the fiscal year with increased (improved) rating <sup>b</sup>	14.7	6.2	6.0	15	12
Percentage of CSPS subwatersheds monitored during the fiscal year with decreased (poorer) rating <sup>b</sup>	35.3	20.6	22.0	20	10
Stream restoration miles with improved stream condition (cumulative)	10.9	11.6	12.0	17.0	22.8
Miles of CSPS priority subwatershed streams needing restoration <sup>c</sup>	303	302	302	297	295
Acres of stormwater controls added to developed areas (cumulative)	2,508	2,856	2,856	3,656	3,773
<b>Service Quality:</b>					
Percentage of watersheds with monitoring data accessible via the Web	100	100	100	100	100
Average time to design stream restoration projects (months)	25	28	<sup>f</sup> 38	24	24
<b>Efficiency:</b>					
Stream monitoring cost per station (\$)	2,613	2,680	3,384	3,680	<sup>d</sup> 3,760
<b>Workload/Outputs:</b>					
Stream stations monitored	93	97	86	69	<sup>d</sup> 69
Stream restoration miles in design	14.2	11.2	10.2	10.9	7.6
Stream restoration miles in construction	<sup>e</sup> 0.0	<sup>e</sup> 0.0	5.0	1.3	0.5
Stream restoration miles completed	5.1	0.7	0.4	5.0	5.8
Number of CSPS priority subwatersheds with project inventories completed	62	62	67	69	69
Number of CSPS priority subwatersheds with projects in design	<sup>g</sup> 15	21	10	8	8
<b>Inputs:</b>					
Workyears <sup>h</sup>	5.5	5.5	5.5	4.2	<sup>d</sup> 4.2
Expenditures (\$000) <sup>h</sup>	243	260	291	335	369
CIP funding for watershed restoration (\$000) <sup>i</sup>	2,612	1,830	2,489	7,579	3,225
<b>Notes:</b>					
<sup>a</sup> CSPS = Countywide Stream Protection Strategy. See EXPLANATION below.					
<sup>b</sup> Each year the Department of Environmental Protection monitors streams in about 20% of County watersheds, enabling a complete CSPS re-evaluation of stream conditions over a 5-year cycle.					
<sup>c</sup> Staff estimates that 25% of the streams in priority subwatersheds are in need of restoration.					
<sup>d</sup> Reflects continued reallocation of some stream monitoring workyears to accomplish other related County monitoring priorities. The Department of Environmental Protection proposes to monitor the same number of baseline stations as in FY05 as well as continue a new, intensive study of urban stormwater management effectiveness in the rapidly developing Clarksburg Master Plan area. For FY06, staff estimates the needs for reallocating a portion of stream monitoring time as follows: 80 hours for NPDES permit monitoring, 120 hours to continue the Clarksburg Best Management Practice Study; 40 hours to continue with a pilot regional study to assess sources of bacterial contamination in the interjurisdictional Anacostia watershed; 40 hours to respond to periodically occurring sediment spills which require cleanup of streams and wetlands; 40 hours to monitor water bodies for potential mosquito infestations; 40 hours to respond to pollutant spills; and 80 hours to reintroduce native fish into Sligo Creek as part of ongoing restoration efforts in that watershed. This leaves an estimated 1,040 hours available for baseline stream monitoring in FY06. Although watershed coverage for updating the CSPS will not be quite as detailed as before, it will still be adequate for presenting a comprehensive assessment of countywide stream conditions.					
<sup>e</sup> No new projects were under construction at the end of FY02, reflecting the diversion of staff to address other project priorities necessary to meet deadlines to secure a \$2 million T21 grant.					
<sup>f</sup> The increased average design time reflects primary work on T21 grant projects and more complex contracting and review requirements for these projects.					
<sup>g</sup> Primarily reflects the completion of all projects within eight CSPS subwatersheds.					
<sup>h</sup> Operating staff only. Excludes CIP workyears and funding.					
<sup>i</sup> Only County and State CIP funds are shown here. The Corps of Engineers manages these projects and uses Federal contracts to build the projects. The County pays a percentage of the project cost to the Corps.					

## ENVIRONMENTAL PROTECTION

### PROGRAM:

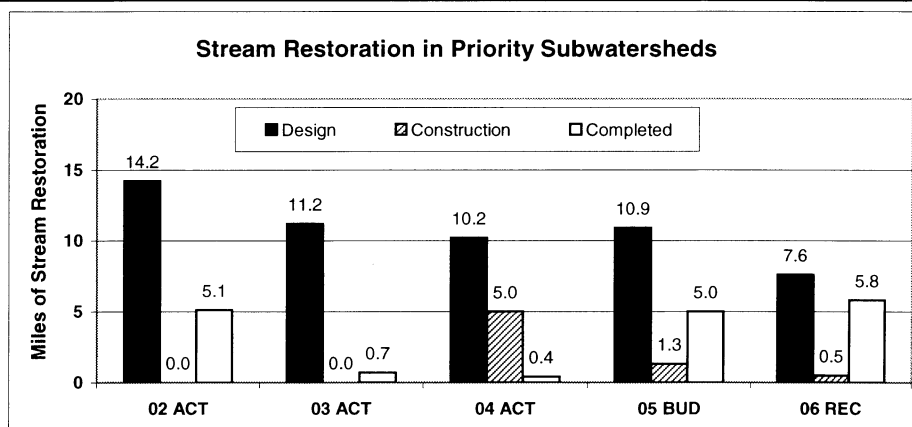
Watershed Management

### PROGRAM ELEMENT:

Water Quality Monitoring; Stream Restoration

### EXPLANATION:

The Countywide Stream Protection Strategy (CSPS) ranks water quality conditions in all County streams. These rankings were used to identify 99 "priority subwatersheds" in need of restoration. The chart tracks the growth in CIP investments to design and construct stream restoration projects and new stormwater controls primarily targeted at improving the protection of streams in "priority subwatersheds." It is currently estimated that restoration of streams within priority watersheds will require about 19 years at current funding levels and implementation rates.



**PROGRAM PARTNERS IN SUPPORT OF OUTCOMES:** Department of Permitting Services, Department of Public Works and Transportation, Maryland-National Capital Park and Planning Commission, Maryland Department of the Environment, Maryland Department of Natural Resources, U.S. Corps of Engineers, environmental groups, citizen groups, businesses.

**MAJOR RELATED PLANS AND GUIDELINES:** Countywide Stream Protection Strategy (CSPS); Montgomery County Strategic Plan for Water Quality Protection; Montgomery County Approved Capital Improvements Program; Water Quality Review law and regulations.